In the Claims:

1-20 (CANCELED)

21. (NEW) A method of inhibiting the transition of cell free Human Immunodeficiency Virus (HIV) through the cellular mucosal barrier of an organism, the HIV carrying an envelope glycoprotein gp120/gp160 which is linked to the HIV, the method comprising:

blocking the glycoprotein against said transition by increasing in the region of the mucosal barrier the concentration of a compound comprising at least one glycan comprising a terminal oligo mannosyl glycan residue for blocking the glycoprotein, said terminal oligo mannosyl glycan residue being non-sulphated and non-ionic, and wherein in blocking the glycoprotein, the link of the glycoprotein to the HIV remains unaffected.

22. (NEW) The method of claim 21 wherein the at least one glycan comprises mannose residues which are non-sulphated, and wherein said at least one glycan is selected from the group consisting of N-glycans, mannans, high-mannose glycans, hybrid glycans, complex glycans, alpha-methyl mannopyranosides, mucine, yeasts, beer yeasts, extracts of *Aloe vera*, and mixtures thereof.

23. (NEW) The method of claim 21 wherein the barrier is an epithelial cell barrier.

24. (NEW) A method of inhibiting the transition of cell free Human Immunodeficiency Virus (HIV) through the cellular mucosal barrier of an organism, the HIV carrying an envelope glycoprotein gp120/gp160 which is linked to the HIV, the method comprising:

blocking the glycoprotein against said transition by increasing in the region of the mucosal barrier the concentration of a compound comprising at least one glycan comprising a terminal oligo mannosyl glycan residue for blocking the glycoprotein, said terminal oligo mannosyl glycan residue

being non-sulphated and non-ionic, and wherein in blocking the glycoprotein, the link of the glycoprotein to the HIV remains unaffected; and

wherein the increasing of the concentration of said compound in the region of said barrier is effected by local administration of said compound to said barrier.

25. (NEW) The method of claim 24 wherein the at least one glycan comprises mannose residues which are non-sulphated, and wherein said at least one glycan is selected from the group consisting of N-glycans, mannans, high-mannose glycans, hybrid glycans, complex glycans, alpha-methyl mannopyranosides, mucine, yeasts, beer yeasts, extracts of *Aloe vera*, and mixtures thereof.

26. (NEW) The method of claim 24 wherein the barrier is an epithelial cell barrier.

27. (NEW) The method of claim 24 wherein the increasing of the concentration of said compound in the region of said barrier is also effected by stimulation of the β-andrenergic system within said organism.

28. (NEW) The method of claim 27 wherein the barrier is an epithelial cell barrier.

29. (NEW) The method of claim 24 wherein the increasing of the concentration of said compound in the region of said barrier is also effected by inhibition of the endogenic processing of glycans by administration to said organism of an inhibitor of the endogenic processing of glycans.

30. (NEW) The method of claim 29 wherein the barrier is an epithelial cell barrier.

31. (NEW) A method for treating an organism infected with cell free Human Immunodeficiency Virus (HIV), the HIV carrying an envelope glycoprotein gp120/gp160 which is linked to the HIV, and the organism having a cellular mucosal barrier, the method comprising:

administering to the organism a compound comprising at least one glycan comprising a terminal oligo mannosyl glycan residue for blocking the glycoprotein against transition of the HIV through the cellular mucosal barrier, said terminal oligo mannosyl glycan residue being non-sulphated and non-ionic, and wherein in blocking the glycoprotein, the link of the glycoprotein to the HIV remains unaffected; and

also administering to the organism a pyrimidine nucleoside analogue capable of inhibiting reverse transcriptase.

32. (NEW) The method of claim 31 wherein the administering of said compound and the administering of the pyrimidine nucleoside analogue are performed simultaneously.

33. (NEW) The method of claim 31 wherein the administering of said compound and the administering of the pyrimidine nucleoside analogue are performed sequentially.

34. (NEW) The method of claim 31 wherein the at least one glycan comprises mannose residues which are non-sulphated, and wherein said at least one glycan is selected from the group consisting of N-glycans, mannans, high-mannose glycans, hybrid glycans, complex glycans, alpha-methyl mannopyranosides, mucine, yeasts, beer yeasts, extracts of *Aloe vera*, and mixtures thereof, and

wherein the pyrimidine nucleoside analogue is 3'-azido-3'-deoxythymidine.

35. (NEW) The method of claim 31 wherein the barrier is an epithelial cell barrier, and said compound is administered locally to said barrier.

36. (NEW) A method of inhibiting the transition of cell free Human Immunodeficiency Virus (HIV) through the cellular mucosal barrier of an organism, the HIV carrying an envelope glycoprotein gp120/gp160 which is linked to the HIV, the method comprising:

blocking the glycoprotein against said transition by increasing in the region of the mucosal barrier the concentration of a compound comprising at least one glycan comprising a terminal oligo mannosyl glycan residue for blocking the glycoprotein, said terminal oligo mannosyl glycan residue being non-sulphated and non-ionic, and wherein in blocking the glycoprotein, the link of the glycoprotein to the HIV remains unaffected; and

wherein the increasing of the concentration of said compound in the region of said barrier is effected by stimulation of the β-andrenergic system within said organism.

37. (NEW) The method of claim 36 wherein the barrier is an epithelial cell barrier.

38. (NEW) A method of inhibiting the transition of cell free Human Immunodeficiency Virus (HIV) through the cellular mucosal barrier of an organism, the HIV carrying an envelope glycoprotein gp120/gp160 which is linked to the HIV, the method comprising:

blocking the glycoprotein against said transition by increasing in the region of the mucosal barrier the concentration of a compound comprising at least one glycan comprising a terminal oligo mannosyl glycan residue for blocking the glycoprotein, said terminal oligo mannosyl glycan residue being non-sulphated and non-ionic, and wherein in blocking the glycoprotein, the link of the glycoprotein to the HIV remains unaffected; and

wherein the increasing of the concentration of said compound in the region of said barrier is effected by inhibition of the endogenic processing of glycans by administration to said organism of an inhibitor of the endogenic processing of glycans.

39. (NEW) The method of claim 38 wherein said inhibitor is selected from the group consisting of desoxymanno jirimycin, swainsonine, desoxyno jirimycin, and mixtures thereof.

40. (NEW) The method of claim 38 wherein said inhibitor is desoxymanno jirimycin.

41. (NEW) The method of claim 38 wherein the barrier is an epithelial cell barrier.

42. (NEW) A method for preventing an infection of a human subject with cell free Human Immunodeficiency Virus (HIV) by transition of the HIV through the cellular mucosal barrier of said subject, the HIV carrying an envelope glycoprotein gp120/gp160 which is linked to the HIV, the method comprising:

administering locally topically to the sexual body part epithelial tissue region of said subject prior to sexual contact with another human subject a compound comprising at least one glycan comprising a terminal oligo mannosyl glycan residue for blocking the glycoprotein against said transition, said terminal oligo mannosyl glycan residue being non-sulphated and non-ionic, and wherein in blocking the glycoprotein, the link of the glycoprotein to the HIV remains unaffected.

43. (NEW) The method of claim 42 wherein the at least one glycan comprises mannose residues which are non-sulphated, and wherein said at least one glycan is selected from the group consisting of N-glycans, mannans, high-mannose glycans, hybrid glycans, complex glycans, alpha-methyl mannopyranosides, mucine, yeasts, beer yeasts, extracts of *Aloe vera*, and mixtures thereof.

44. (NEW) A method for preventing an infection of a human subject with cell free Human Immunodeficiency Virus (HIV) by transition of the HIV through the cellular mucosal barrier of said subject, the HIV carrying an envelope glycoprotein gp120/gp160 which is linked to the HIV, the method comprising:

administering locally topically to the sexual body part epithelial tissue region of said subject prior to sexual contact with another human subject a compound comprising at least one glycan comprising a terminal oligo mannosyl glycan residue for blocking the glycoprotein against said transition, said terminal oligo mannosyl glycan residue being non-sulphated and non-ionic, and wherein in blocking the glycoprotein, the link of the glycoprotein to the HIV remains unaffected; and

also administering to the first aforesaid subject a pyrimidine nucleoside analogue capable of inhibiting reverse transcriptase.

45. (NEW) The method of claim 44 wherein the pyrimidine nucleoside analogue is 3'-azido-3'-deoxythymidine.

46. (NEW) The method of claim 44 wherein the at least one glycan comprises mannose residues which are non-sulphated, and wherein said at least one glycan is selected from the group consisting of N-glycans, mannans, high-mannose glycans, hybrid glycans, complex glycans, alpha-methyl mannopyranosides, mucine, yeasts, beer yeasts, extracts of *Aloe vera*, and mixtures thereof.